



Technical Data

PRIMARY VS 172 Vinyltris (2-methoxyethoxy) silane

CAS# 1067-53-4

PRODUCT DESCRIPTION

Primary VS 172 vinyl silane is a bifunctional additive that enhances the performance of a variety of polymer formulations. A pendant vinyl moiety allows it to react with many organic polymers. Adjacent to the vinyl group, a silane group enables bonding to many inorganic materials. The resultant coupling between organic and inorganic can impart dramatically improved bonding between polymer and inorganic filler and improve wet and dry adhesion of the product to inorganic substrates.

PROPERTIES

| Property | Value |
|-----------------------|---------------------------------------|
| Appearance* | clear, colorless to lt. yellow liquid |
| Purity* | 97% minimum |
| Refractive index* | 1.417-1.431 |
| Specific gravity* | 1.020-1.050 |
| Boiling point °C / °F | 285 / 545 |
| Flash point °C / °F | 92 / 198 |
| Molecular weight | 280 |

* Specification

APPLICATIONS

Use VS 172 where organic resins and inorganic surfaces come into contact. Resins coupled are acrylic, epoxy, polyamide, polyester, urethane, and others. Inorganic materials coupled are

talc, silica, glass, ceramic (including microspheres), many metals, and others.

SUGGESTED APPLICATIONS:

- Pretreatment of glass fibers to be used in fiber reinforced polymers (FRP) where improved flexural and tensile strength are desired, i.e. fiberglass boat, tub, and other composites. Significant improvement in adhesion is realized with unsaturated polyester resins and other polymers,
- Coupling agent in mineral-filled rubber compounds,
- Modification of mineral-filled plastics to improve mechanical properties such as flexibility and impact resistance,
- Improvement of anticorrosive properties of coatings through enhanced adhesion,
- More complete dispersion and viscosity reduction of certain pigment dispersions,
- Priming of difficult substrates to promote adhesion of subsequent coatings.

USE LEVELS

Use VS 172 in-situ at 0.5 to 2.0% as a formulation component. Addition at the point of application will provide optimum adhesion improvement in aqueous systems.

When used as a primer, 0.1 to 2.0% in alcohol or glycol ether with 10% water should provide optimum adhesion to difficult substrates.

QUALITY

VS 172 is produced for Primary Silane under ISO and DIN quality systems. Purity is guaranteed. Service is superior.

PACKAGING

VS 172 is available in 22 kg pails and 200 kg drums. Sample size is 0.5 kg. Shelf life of unopened containers is one year or more from date of manufacture when stored at or below 25°C and away from sunlight.

SAFETY AND HANDLING

Before using VS 172, read the MSDS. Always wear personal protective gear appropriate to the situation. Dispose spilled or unused material in compliance with federal, state, and local regulations.

WARRANTY

The above information is believed correct and is for evaluation purposes only. Customer is required to have a thorough evaluation of this product performed by a qualified individual for suitability prior to use. Statements in this technical data sheet, other literature, or by employees of Primary Silane do not relieve the customer of the need to test incoming material. Warranty is limited to the replacement of defective material.